

AMENDED SET OF CLAIMS

Please amend the claims as follows:

1. (Currently Amended) ~~A—modified~~ An isolated mutant water-soluble glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme, wherein said mutant is a mutant of a glucose dehydrogenase comprising the amino acid sequence of SEQ ID NO:1 and wherein said mutant comprises one or more amino acid substitutions selected from the group consisting of: one or more amino acid residues of a wild-type water-soluble glucose dehydrogenase are replaced with other amino acid residues and having high selectivity for glucose compared with the wild-type water-soluble glucose dehydrogenase

(1) glutamine at position 192 (168th glutamine of SEQ ID NO:1) is substituted with glycine, glutamic acid, leucine, phenylalanine, serine or aspartic acid in SEQ ID NO:1;

(2) leucine at position 193 (169th leucine of SEQ ID NO:1) is substituted with alanine, glycine, methionine, tryptophan or lysine in SEQ ID NO:1; and

(3) aspartate at position 167 (143rd aspartate of SEQ ID NO:1) is substituted with glutamic acid in SEQ ID NO:1, and asparagine at position 452 (428th asparagine of SEQ ID NO:1) is substituted with threonine in SEQ ID NO:1.

2-19. (Cancelled).

20. (Withdrawn) A gene encoding a modified glucose dehydrogenase as claimed in claim

1.

21. (Withdrawn) A vector comprising the gene as claimed in claim 20.
22. (Withdrawn) A transformant comprising the gene as claimed in claim 20.
23. (Withdrawn) A transformant comprising the gene as claimed in claim 20 which is integrated in its chromosome.
24. (Previously Presented) A glucose assay kit comprising the modified glucose dehydrogenase as claimed in claim 1.
25. (Currently Amended) A glucose sensor comprising the modified glucose dehydrogenase as claimed in claim 1 ~~claimed 1~~.
26. (New) The mutant glucose dehydrogenase as claimed in claim 1, wherein glutamine at position 192 (168th glutamine of SEQ ID NO:1) is substituted with glycine, glutamic acid, leucine, phenylalanine, serine or aspartic acid in SEQ ID NO:1.
27. (New) The mutant glucose dehydrogenase as claimed in claim 1, wherein leucine at position 193 (169th leucine of SEQ ID NO:1) is substituted with alanine, glycine, methionine, tryptophan or lysine in SEQ ID NO:1.

28. (New) The mutant glucose dehydrogenase as claimed in claim 1, wherein aspartate at position 167 (143rd aspartate of SEQ ID NO:1) is substituted with glutamic acid in SEQ ID NO:1, and asparagine at position 452 (428th asparagine of SEQ ID NO:1) is substituted with threonine in SEQ ID NO:1.

29. (New) The mutant glucose dehydrogenase as claimed in claim 26, said mutant further comprising a substitution wherein aspartate at position 167 (143rd aspartate of SEQ ID NO:1) is substituted with glutamic acid in SEQ ID NO:1.

30. (New) The mutant glucose dehydrogenase as claimed in claim 26, said mutant further comprising a substitution wherein asparagine at position 452 (428th asparagine of SEQ ID NO:1) is substituted with threonine in SEQ ID NO:1.

31. (New) The mutant glucose dehydrogenase as claimed in claim 27, said mutant further comprising a substitution wherein aspartate at position 167 (143rd aspartate of SEQ ID NO:1) is substituted with glutamic acid in SEQ ID NO:1.

32. (New) The mutant glucose dehydrogenase as claimed in claim 27, said mutant further comprising a substitution wherein asparagine at position 452 (428th asparagine of SEQ ID NO:1) is substituted with threonine in SEQ ID NO:1.